

# **Product Evaluation**

RC469 | 1115

**Engineering Services Program** 

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

**Evaluation ID:** RC-469 **Effective Date:** November 1, 2015

**Re-evaluation Date:** November 2019

**Product Name:** Languedocienne Two Piece Pan and Cover Barrel Clay Roofing Tiles

Manufacturer: Terreal

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**Distributed By:** Terreal North America

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# **General Description:**

The Languedocienne is a two-piece pan and cover barrel tile manufactured from natural clay. The clay roofing tiles are available in a variety of colors.

**Mechanical Attachment Only:** The Languedocienne barrel clay roofing tiles are to be installed mechanically with fasteners.

**Roof Tile Dimensions:** The dimensions of the Languedocienne barrel roofing tile that apply to this product evaluation report are specified in Table 1.

**Table 1: Roof Tile Dimensions** 

Tile Designation	Width	Length	Thickness	
Languedocienne Barrel	8-3/8" at nose	19-1/2"	1/2"	
Roof Tile (Pan and Cover)	6-1/16" at head	19-1/2	1/2	

## **Limitations:**

**Roof Slope Limitations:** Only install the roof tiles on buildings with a roof slope greater than or equal to 2-1/2:12 but not exceeding 12:12. Table 2 specifies the specific roof slope limitations.

**Mean Roof Height Limitations:** The mean roof height limitations must be as specified in Table 2. The roof tiles must not be installed on buildings with a mean roof height greater than 60 feet.

Table 2
Mean Roof Height Limitations <sup>2</sup>

Gable and Hip Roofs - Roof Slope: Minimum 2-1/2:12 up to 6:12

Mean Roof Height Limitation								
Inland II		Inland I		Seaward				
Exposure B <sup>1</sup>	Exposure C <sup>1</sup>	Exposure B <sup>1</sup>	Exposure C <sup>1</sup>	Exposure B <sup>1</sup>	Exposure C <sup>1</sup>			
30'	N/A	N/A	N/A	N/A	N/A			

Note: <sup>1</sup> The Exposure category for the structure location must be as defined in either the IRC or the IBC.

Gable Roofs - Roof Slope: Greater than 6:12° up to 12:12

Mean Roof Height Limitation								
Inland II		Inland I		Seaward				
Exposure B <sup>1</sup>	Exposure C <sup>1</sup>	Exposure B <sup>1</sup>	Exposure C <sup>1</sup>	Exposure B <sup>1</sup>	Exposure C <sup>1</sup>			
60'	60'	60'	15'	30'	N/A			

Note: <sup>1</sup> The Exposure category for the structure location must be as defined in either the IRC or the IBC.

**Roof Framing and Roof Deck:** The roof framing materials and connections must comply with the wind load provisions of either the IRC or the IBC. The roof framing member spacing must not exceed 24" on center.

Solidly sheath the roof deck with minimum 15/32" thick plywood. Fasten the roof deck to the roof-framing members in accordance with the wind uplift requirements as stipulated by the IRC or the IBC.

If the existing roof framing consists of spaced boards, then a solid deck must be constructed using one of the following two options: (1) remove and replace the spaced boards with a solid minimum 15/32" plywood deck or (2) cover the spaced boards with a solid minimum 15/32" plywood deck. Fasten the wood structural panel deck over the spaced boards in accordance with the wind uplift requirements as stipulated by the IRC or the IBC.

<sup>&</sup>lt;sup>2</sup> Table is based on an Importance factor of 1.0

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**Metal drip edge:** Fasten a metal drip edge to the roof deck with either 11-gauge or 12-gauge roofing nails spaced a maximum of 10" on center. Fasten the underlayment and the drip edge with the same fastener. Use the more stringent fastener pattern.

At the eaves, fasten the drip edge directly to the deck and apply the underlayment over the drip edge. At the gable ends, apply the drip over the underlayment.

### **Roof Underlayment:**

**2-1/2:12 Roof Slope to Under 4:12 Roof Slope:** Single-ply or multi-ply sealed underlayment system with sealed head laps and side laps. Install the underlayment as specified in either the IRC or the IBC and in the manufacturer's installation instructions as referenced in the TRI/WSRCA Installation.

**4:12 Roof Slope and Greater:** Use one layer of underlayment complying with ASTM D 226, Type II (No. 30 asphalt felt) or equivalent. Lap the underlayment a minimum of 2" at the head laps and a minimum of 6" at the side laps. Install the underlayment as specified in either the 2006 IRC or the 2006 IBC and the manufacturer's installation instructions.

#### **Roof Tile Installation:**

#### General:

- The Languedocienne barrel clay roofing tiles and the underlayment system must be clean and dry at the time of application.
- Install the Languedocienne barrel clay roofing tiles in accordance with this product evaluation report and the manufacturer's installation instructions.

**Roof Tile Fasteners:** Mechanically fasten the roofing tiles to the supporting members. Use minimum No. 12-7 x 2" stainless steel bugle head screws. Fasteners must be of sufficient length to penetrate at least 3/4" into (or through) the roof deck.

**Pan Tiles:** Secure the pan tiles directly to the wood deck with one fastener per tile in the hole in the tile.

**Cover Tiles:** Secure a pressure treated nominal 2x4 dimension lumber nailer to the wood deck with minimum No. 14-13 x 5" stainless steel bugle head screws spaced a maximum of 16" on center. Fasteners must be of sufficient length to penetrate at least 3/4" into (or through) the roof deck. Secure the tile to the nailer with one fastener per tile in the hole in the tile.

**Rake Tiles, Hip Tiles, and Ridge Tiles:** Refer to the roofing tile manufacturer's installation instructions for the installation of the rake, hip, and ridge tiles.

**Note:** Keep the manufacturer's installation instructions at the job site during installation. Use corrosion resistant fasteners as specified in the IRC the IBC, and the Texas Revisions.